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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,370	05/16/2007	Gary James Mahony	I0002/335645	9443

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EXAMINER

DOWLING, WILLIAM C

ART UNIT	PAPER NUMBER
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2878

NOTIFICATION DATE	DELIVERY MODE
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07/22/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/594,370	Applicant(s) MAHONY ET AL.	
	Examiner WILLIAM C. DOWLING	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10, 12-17, 19 and 21-25 is/are rejected.
- 7) ☒ Claim(s) 11, 18, 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 4/28/11, PROSECUTION IS HEREBY REOPENED. A new rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/GEORGIA Y EPPS/

Supervisory Patent Examiner, Art Unit 2878

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw (4,114,996) in view of WO98/44388.

Shaw discloses a method of auto loading film in a film transport system, comprising:

engaging the film (30) with an input drive assembly (31);

threading film through a film transport path automatically by the input drive assembly;

receiving the film at an output drive assembly (sprocket 32); threading the film on to a film take-up system (not shown) through out sprocket (34); and

automatically creating at least one film loop (48) and engaging at least one registration pin (40) into at least one film perforation;

automatically positioning a film start frame into an aperture (38) of the film transport system by feeding the film through the system.

WO98/44388 teaches the known use of supply and take-up reel in a film transport system.

It would have been obvious to one of ordinary skill in the art to modify the structure of Shaw by the use of supply and take-up reels, as taught by WO98/44388, in order to facilitate the efficient provision of the film to the transport system and the efficient collection of the transported film afterward.

Webster's ninth New Collegiate dictionary define the verb "thread" as "to pass (as a tape, line or film) into or through something (e.g. fresh film into the camera)". The

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movement of the film (30) from input sprocket (31) through the transport path formed by elements (34, 36, 37) meets the definition of “threading”.

Shaw does not specifically illustrate the input and output reels for the film. Indeed all the other prior art and applicant's own specification also does not illustrate such a feature. This is because such elements are so well known in film transport systems as to not necessitate illustration. This was made clear in the examiner's remarks. “It is maintained that the feeding of the film from an initial reel and outputting the film onto a take up reel are inherent aspects of a film advancement device such as shown by Shaw because the film clearly has to come from some source and has to be fed to some physical structure in order to operate efficiently.” However, since this may not be inherent, for example, a user could conceivably feed film from his hand and let it run out onto the floor, WO98/44388 has been cited to illustrate supply and take-up reels (32,340). Again, the movement of the film from the transport system onto the take-up reel constitutes “threading” under the conventional definition of the term.

Applicant also seems to emphasize the use of the words “auto loading” and “automatically”. No structure is cited in applicant's specification, in particular figures 1-3 to support any such distinguishing elements. The mechanical movement of sprocket (32) to engage the film and thread it through the transport mechanism is sufficient to meet these limitations in that the movement is not done by a users hand. Further it has been held that to make something previous done manually automatic is not a patentable distinction. Also, there always must be some manual user involvement. The film reel is

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not going to take itself off the shelf. The film is attached to the input sprocket and then automatically transported by turning on the device.

4. Claims 10, 12-17, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw (4,114,996) and WO98/44388, and Goodhill et al. (5,946,076).

Shaw discloses a film transport system comprising:

a film transport path for transporting film, the transport comprising a rotor (34) with at least one gap (42,44,46);

an input drive assembly (31) for advancing film through the film transport path,

an output drive assembly (32) for advancing film out of the film transport path;

an aperture (38) positioned in the film transport path;

at least one registration pin (40) capable of engaging at least one perforation in the film to secure a portion of the film in the aperture;

wherein the film forms a film loop in the rotor gap (42) and the rotor gap is capable of moving the film loop to engage and disengage the film from the at least one registration pin.

The structure of meets the limitation of being a linear loop, as best as this contradictory term can be understood.

WO98/44388 teaches the known use of supply and take-up reel in a film transport system.

Shaw does not specify that the drive assembly is of a variable nature. Shaw does specify driving the input and output drives at a “predetermined speed”. Shaw does not teach the input drive assembly being of a variable speed type and having “at least two sprockets”.

Variable speed motors and the like are old and well known in the art.

Goodhill (5,946,076) teaches a known example of a film feeding device comprising an input drive assembly for advancing the film through a light path and comprising a variable speed motor (30) and sprockets (22, 28) for advancing and controlling the speed to control the film frame by frame through the aperture (26) (Column 5 lines 1-16) . The motor may provide additional speeds as desired (Column 5 Lines 20-23). Electronic controller (94) is provided to ensure proper speed operation. (Column 7 Lines 24-33). Output sprocket (24) is also provided.

As regards claims 14—18, the speed may be adjusted during operation . (Column 7 Lines 45-51) so as to change frame rates dependent on condition (format) of the film. (Column 7 Lines 59-63). Goodhill contemplates other formats as well (Column 10 Lines 52-60) and thus is “capable” of one film perforation increments.

It would have been obvious to one of ordinary skill in the art to provide an electronic controller and variable speed motors, as taught by Goodhill, to control the film sprockets and rotor speed in order to allow for control of the film feeding speed for forming the film loops and controlling the transport speed of the film, as desired. It further would have been obvious to allow for a change in timing operation, i.e. how fast each frame is positioned or stays in the aperture because it is well known to operate

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devices at different speeds on different occasions and situations, such as for film formats and desired projection speed .

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw and WO98/44388, and Goodhill et al. (5,946,076), as applied to claim 10 above, and further in view of Shaw (3,600,073).

Shaw and WO98/44388 and Goodhill et al. (5,946,076) disclose the invention substantially as claimed but do not teach the use of an airflow system.

Shaw (3,600,073) teach a loop forming film transport system comprising air guiding tips (vertical jets Column 3 Line73), and a valve (158) for controlling the airflow, air from the tip jets is guided by the physical structure of the device onto the film loop formed in the gaps to prevent at least in part longitudinal bending of the film. (Column 4 Lines 1-3).

It would have been obvious to one of ordinary skill in the art to modify the above combination by the addition of an air system, as taught by Shaw (3,600,073) to facilitate eliminating longitudinal bending of the film.

Allowable Subject Matter

6. Claims 11, 18, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 1-9 are allowed.

Response to Arguments

8. Applicant's arguments with respect to the claims 1-10, 12-17, 19, 21-22 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant arguments in the Appeal Brief that the examiner allegedly failed to address numerous elements including “a film transport path for transporting film”, “an input drive for advancing film”, “an output drive assembly, ‘wherein the film forms a film loop and the rotor gap is capable of moving the film loop’, a film loop transport”, these assertions are simply false and incorrect. All these elements were referenced by numeral and a casual perusal of the relevant sections of the references would have made clear to one of ordinary skill in the art the basis for the rejections with respect to those elements.

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, such motivation is found in the general knowledge of rotary motors being driven at variable speeds. Such a concept has been known for hundreds of years.

With respect to other various deficiencies, additional clarification has been made in this new rejection since applicant appears unwilling to acknowledge the known state of the art. Applicant's own specification acknowledges in the BACKGROUND the known usage of variable speed servomotors for intermittently advancing film and providing velocity control of the film transport. With respect to applicant's assertions that the motivational statements were "bald conclusions", this too is inaccurate. There was no "speculation", just an acknowledgment as to what was known in the state of the art. The motivation to combine elements of one invention with elements from another does not have to be expressly stated in the references. If that were the case there would be much fewer 103 obviousness rejections. As to "reasonable expectation of success", it is believed that the substitution of a variable speed motor for a constant speed motor would have been reasonably expected to succeed in transporting film at variable speeds.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

With respect to applicant assertion that the examiner's proposals to substitute variable speed sprockets for constant speed sprockets "makes no sense' because one system has a rotor and the other does not, it is applicant's assertion which is "nonsensical'. It is the manner of driving sprockets which is being modified. Such modification would in no way have destroyed the Shaw invention. It would have allowed for variable speed film transport by using variable speed sprockets accompanied by rotation of the rotor at a complementary speed. Application of such a concept is certainly well within the level of ordinary skill.

As to applicant assertion as to what "is" known in the state of art versus what "was" known, the examiner's statement was merely a term of language usage, one that has been used thousands of times. That is merely semantics. The knowledge to operate devices at a speed proper for a desired function is, was, and always will be known to one of ordinary skill in the art of rotary motors.

Allowable Subject Matter

9. Claims 1-9 are allowed.
10. Claims 11, 19, 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Dowling whose telephone number is 571-272-2116. The examiner can normally be reached on MON-THURS.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William C. Dowling/
Primary Examiner, Art Unit 2878

wcd